

CONFIDENCE INTERVALS USING THE Z-DISTRIBUTION

TI-83 INSTRUCTIONS

VISIT

These instructions show how to calculate a confidence interval for the mean of a population from a sample given that the standard deviation of the population is known.

The mean weight of a sample of yabbies from a dam is found to be 84.6 grams. The population standard deviation is known to be 16.8 grams.

A 95% confidence interval for the population mean can be calculated as follows:

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```
IT CALC 115515
Z-Test...
T-Test...
2-SampZTest...
2-SampTTest...
1-PropZTest...
2-PropZTest...
ZInterval...
```

```
Interval
npt:Data 115515
s:16.8
x:84.6
n:60
C-Level:.95
Calculate
```

Step 3: Highlight **Calculate** and press **ENTER**.

So, we are 95% confident that the population mean weight of yabbies lies between 80.349 and 88.851 grams.

```
ZInterval
(80.349,88.851)
x=84.6
n=60
```